

COCHRAN FREUND & YOUNG LLC
An Intellectual Property Law Firm

2026 Caribou Drive
Suite 201
Fort Collins, Colorado 80525
USA
Telephone: (970) 492-1100
Facsimile: (970) 492-1101

RECEIVED
CENTRAL FAX CENTER

SEP 13 2005

4450 Arapahoe Avenue
Suite 100
Boulder, Colorado 80303
USA
Telephone: (303) 448-8889

Denver Metro: (303) 288-4596

INTERNET: www.patentlegal.com

Fax Transmission | Date: September 13, 2005

To:	Commissioner for Patents	From:	James R. Young
Company:	Patent and Trademark Office	Our Ref.:	MKSL50USU1
Serial No.:	09/815,376	Fax No.:	<u>(970) 492-1101</u>
Fax No.:	(571) 273-8300	Phone No.:	<u>(970) 492-1100</u>
Phone No.:		Total Pages:	<u>35</u> (Incl. cover sheet)
If Int'l:		Return Fax To:	STB

Confirmation Via Mail:

Message:

Please see attached Supplemental Amendment in the above patent application.

This transmission contains information that is confidential and/or legally privileged. It is intended for use only by the person to whom it is directed. If you have received this facsimile in error, please notify us by telephone immediately so that we can arrange for the return of the original documents to us.

If you did NOT receive all of the pages, please call us in the U.S.A. at (970) 492-1100 or fax us at (970) 492-1101.

F:\Documents and Settings\stefmnb.coclaw\Desktop\Fax Cover - USPTO .doc

PTO/SB/21 (02-04)

Approved for use through 07/31/2008. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL
FORM

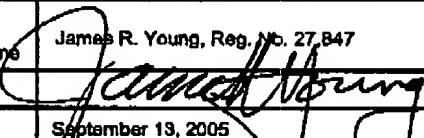
(to be used for all correspondence after initial filing)

		Application Number	08/815,378
		Filing Date	03/21/2001
		First Named Inventor	Holcomb
		Art Unit	3634
		Examiner Name	Gregory J. Strimbu
Total Number of Pages in This Submission	34	Attorney Docket Number	16458-050 (MKS1.50USU1)

ENCLOSURES (Check all that apply)

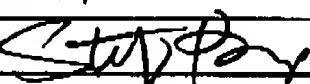
<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<small>Remarks</small> Firm check in the amount of \$2,100.00 is enclosed.		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	James R. Young, Reg. No. 27,847
Signature	
Date	September 13, 2005

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Stefan Bump	
Signature		Date 9-13-05

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

RECEIVED
CENTRAL FAX CENTER

SEP 13 2005

PTO/SB/17 (12-04v2)
Approved for use through 07/31/2006. OMB 0851-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).**FEE TRANSMITTAL
For FY 2005** Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 2,100.00)

Complete If Known

Application Number	08/815,378
Filing Date	3-21-2001
First Named Inventor	Garry Holcomb
Examiner Name	Gregory J. Strimbu
Art Unit	3634
Attorney Docket No.	16458-050 (MKS1.50USU1)

METHOD OF PAYMENT (check all that apply)

Check Credit Card Money Order None Other (please identify): _____

Deposit Account Deposit Account Number 50-1491 Deposit Account Name Cochran Freund & Young

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

Charge fee(s) indicated below Charge fee(s) indicated below, except for the filing fee

Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 Credit any overpayments

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

FEE CALCULATION**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fee Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	_____
Design	200	100	100	50	130	65	_____
Plant	200	100	300	150	160	80	_____
Reissue	300	150	500	250	600	300	_____
Provisional	200	100	0	0	0	0	_____

2. EXCESS CLAIM FEES**Fee Description**

Each claim over 20 (including Reissues)

Each independent claim over 3 (including Reissues)

Multiple dependent claims

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)	Small Entity Fee (\$)	Fee (\$)
38	- 20 or HP = 18	x 50	= 900	50	25

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)	Multiple Dependent Claims	Fee (\$)	Fee Paid (\$)
10	- 3 or HP = 6	x 200	= 1200	360	180	_____

HP = highest number of independent claims paid for, if greater than 3.

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
_____	- 100 = _____	/ 50 = _____ (round up to a whole number)	x _____	_____

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): _____

Fee Paid (\$)
2,100.00**SUBMITTED BY**

Signature	<i>James R. Young</i>	Registration No. (Attorney/Agent) 27,847	Telephone 970-492-1100
Name (Print/Type)	James R. Young		Date September 13, 2005

This collection of information is required by 37 CFR 1.36. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

RECEIVED
OPIE/IAP

SEP 15 2005

RECEIVED
CENTRAL FAX CENTER

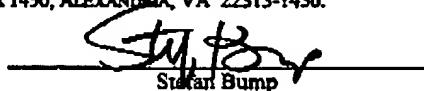
SEP 13 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Holcomb et al.	Examiner:	Gregory J. Strimbu
Serial No.:	09/815,376	Group Art Unit:	3634
Filed:	March 21, 2001		
For:	COMBINATION DIFFERENTIAL AND ABSOLUTE PRESSURE TRANSDUCER FOR LOAD LOCK CONTROL	Docket No.	16458-050 (MKS1.50USU1)

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

I CERTIFY THAT, ON SEPTEMBER 13, 2005, THIS PAPER IS BEING
FACSIMILE TRANSMITTED TO THE USPTO, OR DEPOSITED WITH THE
U.S. POSTAL SERVICE WITH SUFFICIENT POSTAGE AS FIRST CLASS MAIL
IN AN ENVELOPE ADDRESSED TO THE COMMISSIONER FOR PATENTS,
P.O. BOX 1450, ALEXANDRIA, VA 22313-1450.



Stefan Bump

SUPPLEMENTAL AMENDMENT

Sir:

Please amend the above-identified patent application, as follows:

Amendments to the Specification begins on page 2 of this paper.

Amendments to the Claims begin on page 3 of this paper.

Statement Of The Substance Of The Interview begins on page 29 of this paper.

Remarks/Arguments begin on page 30 of this paper.

09/16/2005 FAXRED1 00000018 501491 09015376

01 FC:1201 1200.00 DA
02 FC:1202 850.00 DA

[0031] As illustrated in the function block diagram in Figure 3, a power supply 91 for the absolute pressure transducer function 90 and a power supply 101 for the differential pressure transducer function 100 are connected to an external power source 82. In the absolute pressure transducer function 90, the absolute pressure sensor 20, such as a standard pirani sensor, which can sense absolute pressure accurately from about 100 torr down to about 10^{-4} torr, senses pressure in the load lock chamber 60. A pirani bridge circuit 92 produces a voltage signal that is indicative of the absolute pressure sensed by the pirani sensor 20. An analog process circuit 93 drives the bridge circuit 92 and amplifies and conditions the voltage signal from the bridge circuit 92. The relay control circuit 94 utilizes the voltage signal from the process circuit 93 to generate control signals to the interior door 62 actuator to open the door 62 when the pressure in the load lock chamber 60 reaches a certain minimum pressure to match or at least get close to the pressure at which the process chamber 70 (Figure 2) is operated. Alternatively, the control signal from relay control circuit [[93]] 94 can be used to prevent the interior door 62 from being opened until the minimum threshold pressure in the load lock chamber 60 is reached. Also, as mentioned above, the relay control circuit 94 can also be configured to output a control signal to the throttle valve 66 controller (not shown) to speed up the vacuum pump 65 when the pressure in the load lock chamber gets pumped down to some selected intermediate pressure threshold so as to keep gas flow in the load lock chamber 60 to a minimum during pump down of the load lock chamber 60 when pressure is relatively high. Other absolute pressure sensors could also be used in this invention instead of the pirani sensor 20 described.